

ABSTRACT

A system monitors and controls the injection of additives into formation fluids recovered through a subsea well. The system includes a chemical injection unit and a controller positioned at a remote subsea location. The injection unit uses a pump to supply one or more selected additives from a subsea and/or remote supply unit. The controller operates the pump to control the additive flow rate based on signals provided by sensors measuring a parameter of interest. A one mode system includes a surface facility for supporting the subsea chemical injection and monitoring activities. In one embodiment, the surface facility is an offshore rig that provides power and has a chemical supply that provides additives to one or more injection units. In another embodiment, the surface facility includes a relatively stationary buoy and a mobile service vessel. When needed, the service vessel transfers additives to the chemical injection units via the buoy.

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